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## **ABSTRACT**

Method for selecting IP data packet segments in an all-IP architecture that supports CDMA soft handoff via IP multicasting, wherein both the mobile terminal and IP backbone network receive a plurality of identical, redundant CDMA IP data packets. A best IP data packet is created by first, receiving a plurality of IP data packets from a plurality of corresponding base stations, second, separating those IP data packets into data packet segments comprising separate time intervals, and third, employing different metric standards to determine which of those data packet segments received for each time interval is the best data packet segment. The best data packet segments are determined by creating a quality matrix that represents the quality of each data packet segment for each time interval. A quality function is then computed for each time interval to determine which data segment is the best for that particular time interval.